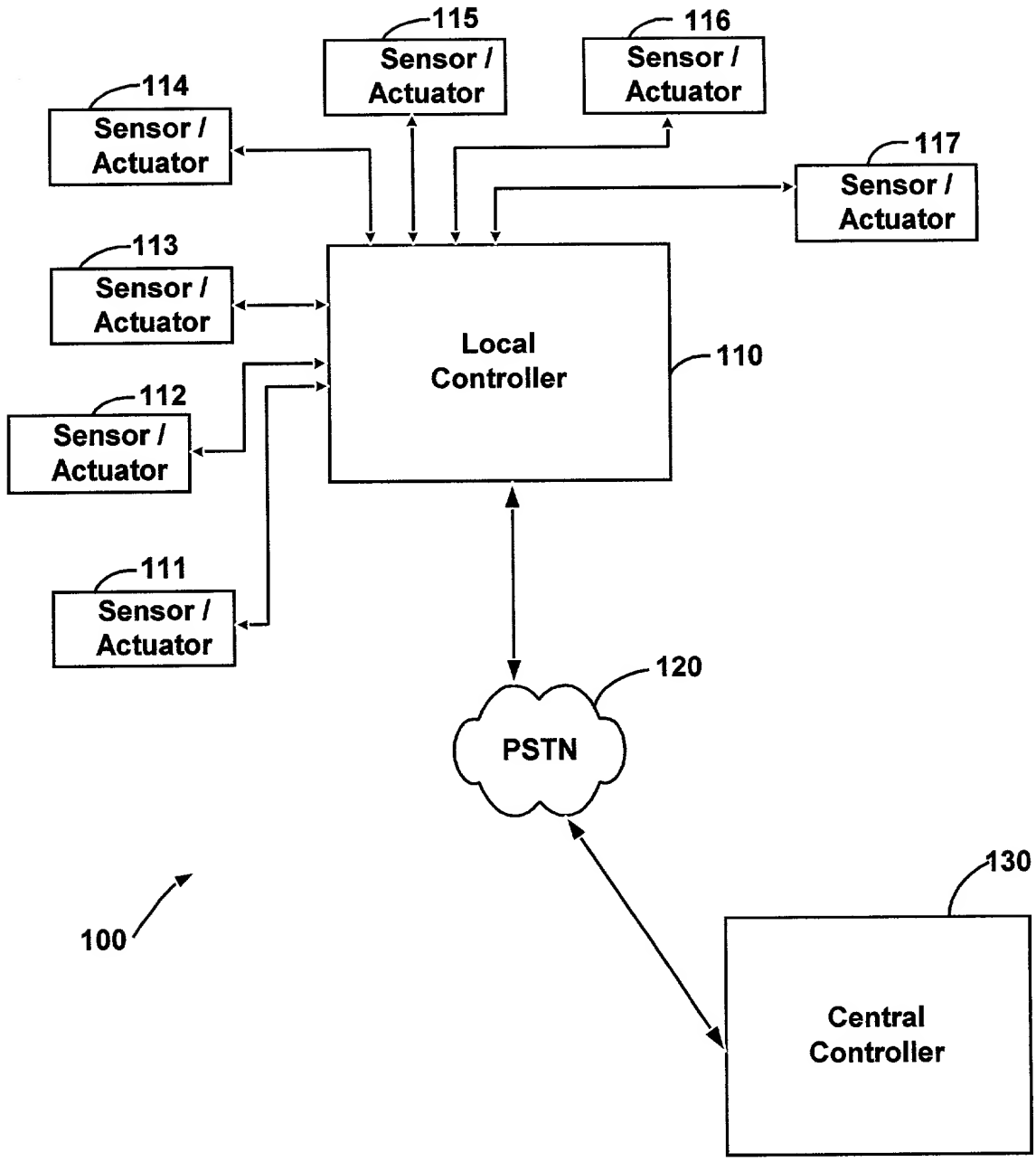

FIG. 1
(PRIOR ART)

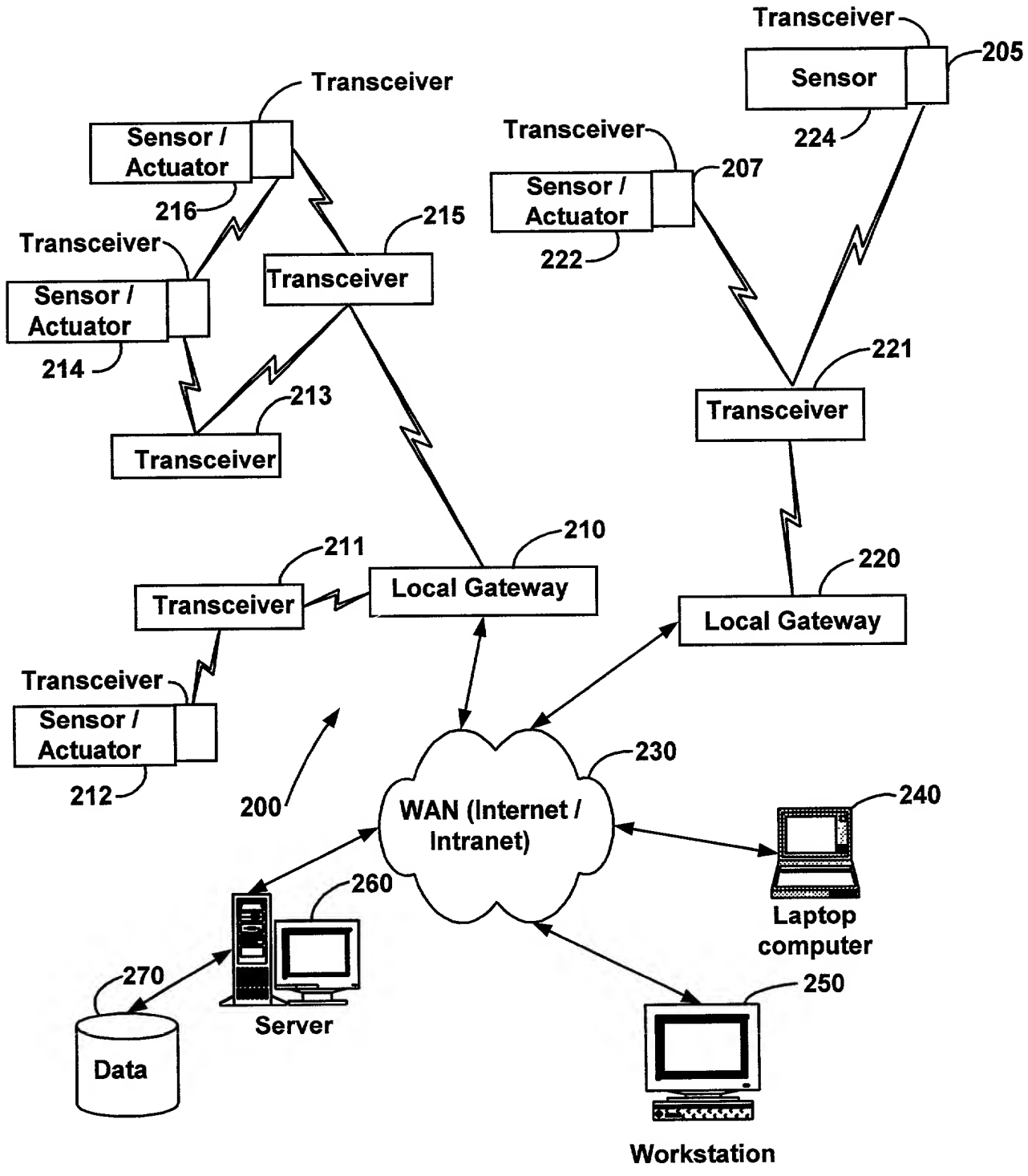
Transceiver
205
Sensor
224
Transceiver
Sensor / Actuator
216
Transceiver
215
Transceiver
207
Sensor / Actuator
222
Transceiver
Sensor / Actuator
214
221
Transceiver
213
Transceiver
210
211
Transceiver
Local Gateway
220
Local Gateway
Transceiver
Sensor / Actuator
212
200
230
WAN (Internet / Intranet)
240
Laptop computer
260
270
Server
250
Data
Workstation

FIG. 2

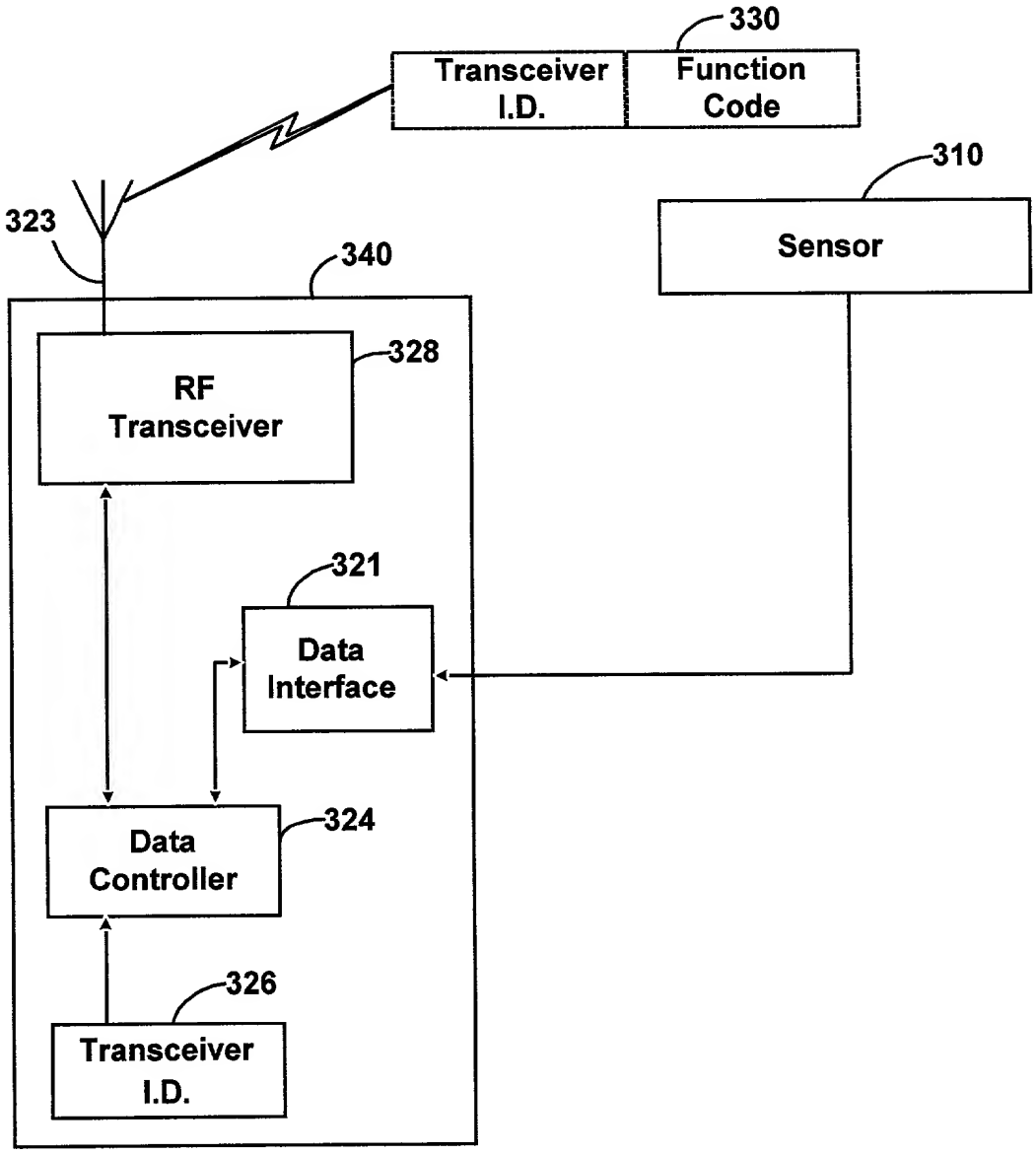
330
Transceiver I.D.
Function Code
310
Sensor
323
340
RF Transceiver
328
321
Data Interface
Data Controller
324
326
Transceiver I.D.

FIG. 3

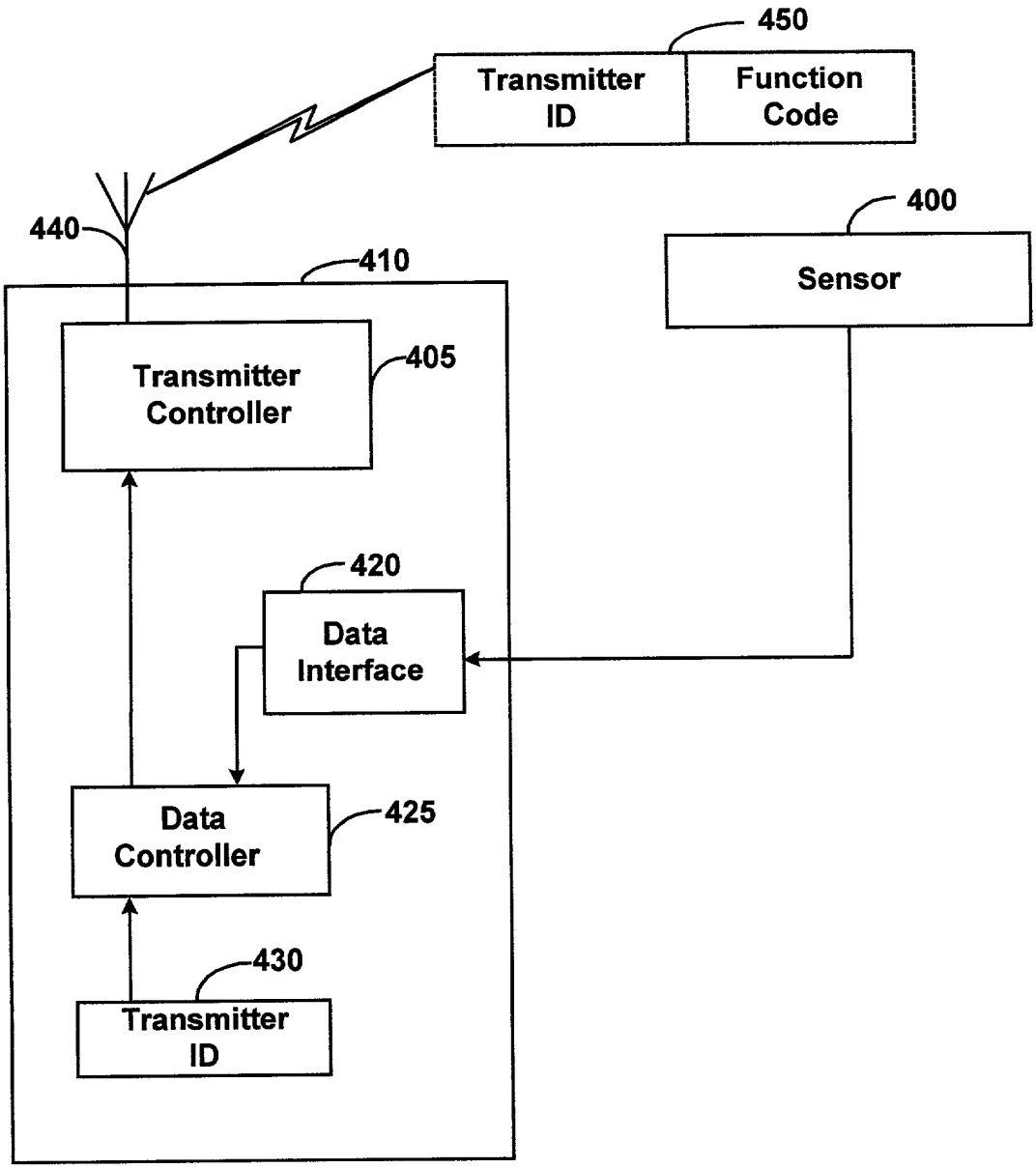
450
Transmitter ID
Function Code
440
400
Sensor
410
Transmitter Controller
405
420
Data Interface
Data Controller
425
430
Transmitter ID

FIG. 4

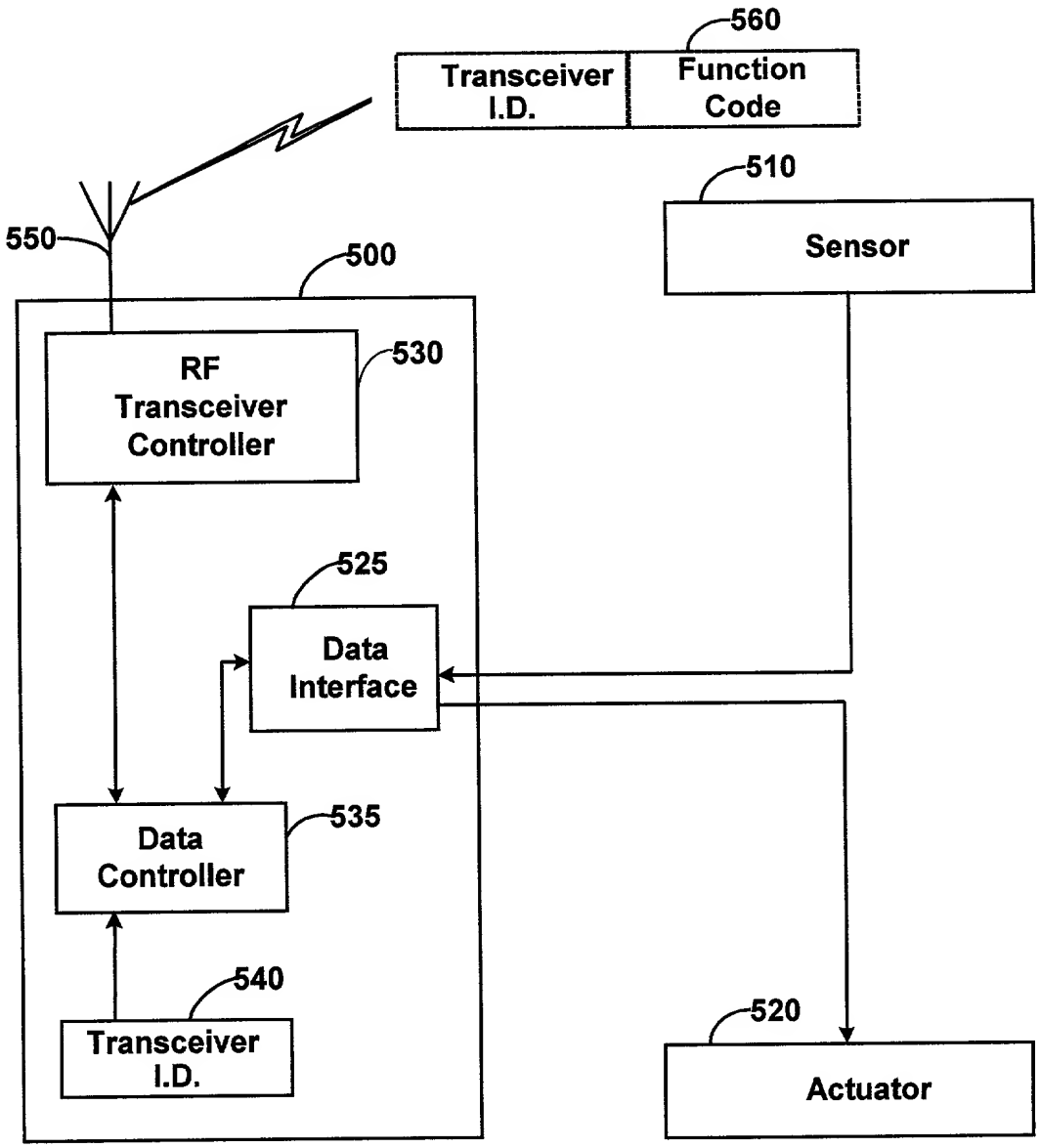
560
Transceiver I.D.
Function Code
510
Sensor
550
500
RF Transceiver Controller
530
525
Data Interface
Data Controller
535
540
Transceiver I.D.
520
Actuator

FIG. 5

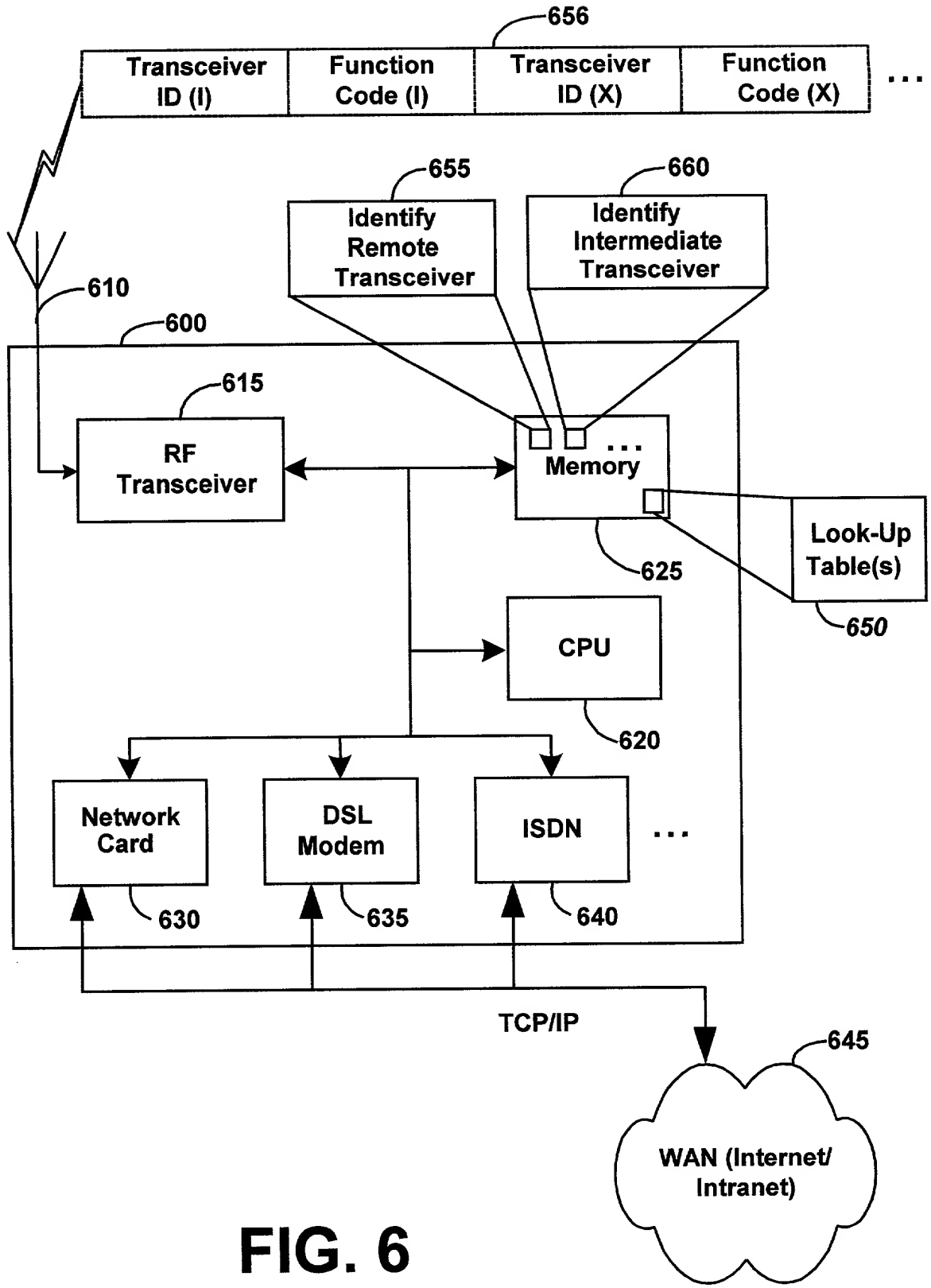
656
Transceiver ID (I)
Function Code (I)
Transceiver ID (X)
Function Code (X)
...
655
Identify Remote Transceiver
660
Identify Intermediate Transceiver
610
600
615
RF Transceiver
Memory
...
625
Look-Up Table(s)
650
CPU
620
Network Card
DSL Modem
ISDN
...
630
635
640
TCP/IP
645
WAN (Internet/ Intranet)

FIG. 6

FIG. 7 Message Structure

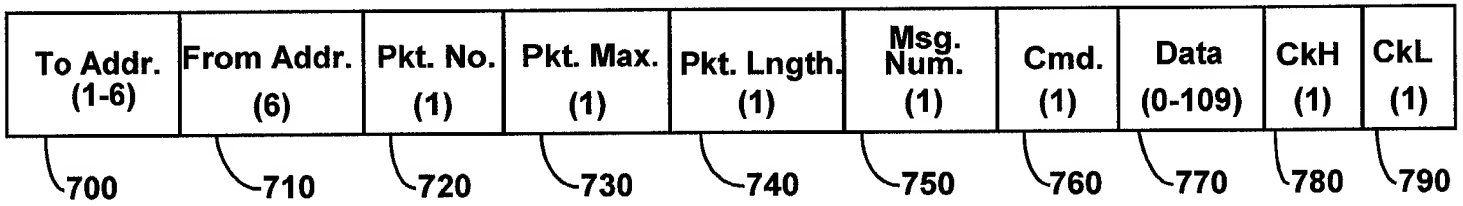

FIG. 8

"To Address"	Byte Assignment:
MSB - Byte 1 Device Type	FF-F0 (16) - Broadcast All Devices (1 Byte Address) EF-1F (224) - Device Type Base (2 to 6 Byte Address) 0F-00 (16) - Personal Transceiver Identification (6 Byte Address)
Byte 2 Mfg./Owner ID	FF-F0 (16) - Broadcast all Devices (Byte 1 Type) (2 Byte Broadcast Address) EF-00 (240) - Mfg./Owner Code Identification Number
Byte 3 Mfg./Owner Extension ID	FF-F0 (16) - Broadcast all Devices (Byte 1 & Byte 2 Type) (3 Byte Broadcast Address) EF-00 (240) - Device Type/Mfg./Owner Code ID Number
Byte 4	FF-F0 (16) - Broadcast all Devices (Byte 1 & Byte 2 Type) (4 Byte Broadcast Address) EF-00 (240) - ID Number
Byte 5	(FF-00) 256 - Identification Number
Byte 6	(FF-00) 256 - Identification Number

Sample Messages

Central Server to Personal Transceiver - Broadcast Message - FF (Emergency)

Byte Count = 12

910

To Addr. (FF)	From Addr. (12345678)	Pkt. No. (00)	Pkt. Max. (00)	Pkt. Lngth. (0C)	Cmd. (FF)	CkH (02)	CkL (9E)

First Transceiver to Repeater (Transceiver) Broadcast Message - FF (Emergency)

Byte Count = 17

920

To Addr. (F0)	From Addr. (12345678)	Pkt. No. (00)	Pkt. Max. (00)	Pkt. Lngth. (11)	Cmd. (FF)		CkH (03)	CkL (A0)

Data (A000123456)

Note: Additional Transceiver Re-Broadcasts do not change the message. The messages are simply received and re-broadcast.

Message to Device "A0" From Device "E1" Command - "08" (Respond to PING) Response will reverse "To" and "From" Addresses

Byte Count = 17

930

To Addr. (A012345678)	From Addr. (E112345678)	P # (00)	P Max. (00)	P Lngth. (11)	Cmd. (08)	Data (A5)	CkH (04)	CkL (67)

FIG. 9